

movement of the object,

wherein the movement of the object is detected by motion vectors corresponding to a plurality of detecting areas set in an imaging area of the imaging device.

REMARKS

The Office Action dated November 19, 2002 has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto. Claim 7 is amended. No new matter is added. Accordingly, in view of the above amendments and the following remarks, favorable consideration of claims 2-7 and is respectfully requested.

As a preliminary matter, Applicants thank Examiner Nguyen for granting a personal interview regarding the present application on March 26, 2003.

The Office Action rejects claims 2-5 and 7 under 35 U.S.C. § 103(a) over Kinjo (U.S. Patent No. 5,289,227) in view of Nishida (U.S. Patent No. 5,210,566). This rejection is respectfully traversed.

Applicants' independent claim 7 recites a camera apparatus comprising, an imaging device, means for detecting the movement of an object on the basis of an output of the imaging device, exposure determination means for determining the exposure, and exposure correction means for making exposure correction to the exposure determined by the exposure determination means on the basis of the detected movement of the object, wherein the movement of the object is detected from motion vectors corresponding to a plurality of detecting areas set in an imaging area of the imaging device.

Kinjo discloses a method of automatically controlling taking exposure and focusing in a camera and a method of controlling printing exposure. The device

includes a camera apparatus having an imaging device 20. A position/distance detecting circuit 26 and main object detecting circuit 30 detect information relating to the movement of an object on the basis of the output of the imaging device 20. The main object detecting circuit outputs the distance to the main object to the lens setting unit 32 and the taking exposure control circuit 34. Exposure control circuit 34 controls the diaphragm of lens 33 with diaphragm driver 47 and controls shutter with the shutter speed driver 48.

However, as admitted by the Examiner, Kinjo fails to teach or suggest a means for detecting the movement of an object on the basis of an output of the imaging device, wherein the movement of the object is detected from motion vectors corresponding to a plurality of detecting areas set in an imaging area of the imaging device. Kinjo teaches using the change in brightness data to detect the motion of the object. In other words, Kinjo neither teaches nor suggests detecting the movement of an object being detected from motion vectors. The Office Action asserts that Nishida discloses the subject matter lacking in Kinjo. Applicants respectfully disagree for the following reasons

Nishida discloses a photographic optical control system wherein lens focusing control and exposure control is accomplished based on image signals from the imaging element. A received image is converted into an electrical signal wherein a band pass filter (BPF) extracts the high-frequency component, which is fed to a motion vector detecting circuit 68 for detecting the motion of the image from two time-continuous image frames. See col. 4, line 56 - col. 5, line 1.

However, Nishida detects the motion of the main object by the motion vector

detecting circuit 108 to move the photometric area to the position of the main object by the photometric area controlling circuit 110. Thus, the position of the photometric area is relocated to the main object. Nishida does not teach or suggest detecting the movement of an object. In other words, Nishida merely discloses only detecting the position of the object. In contrast, Applicants' claimed invention relates at least to the movement of the object rather than the position of where the object is moving to. Thus, it is respectfully submitted that Nishida does not cure the deficiencies of Kinjo. Accordingly, Kinjo nor Nishida, individually or in combination, teach or suggest all the features recited in claim 7. As such, Applicants respectfully request the withdrawal of the rejection of claim 7 under 35 U.S.C. 103(a)

Claims 2-5 depend from claim 7. Thus, for at least the above reasons, Applicants respectfully request the withdrawal of the rejection of claims 2-5 and 7 under 35 U.S.C. § 103(a).

The Office Action rejected claim 6 under 35 U.S.C. § 103(a) over Kinjo in view of Nishida, and further in view of Nakano et al. (U.S. Patent No. 5,043,816). This rejection is respectfully traversed.

Nakano discloses an electronic still camera wherein a plurality of images are temporarily stored in a semiconductor memory 22. A shutter control circuit 14 controls the auto-focusing mechanism and automatic exposure mechanism to adjust the focusing and exposure. The images stored in the semiconductor memory 22 are displayed in a monitor 34.

However, the Images stored in the semiconductor memory 22 are not exposure control adjusted for motion. Only after the images are stored in the semiconductor

memory 22, are they evaluated for motion. Nakano does not actually control the exposure of the initial image, but, rather "corrects" the images after they are captured. Furthermore, Nakano does not cure the deficiencies of Kinjo and Nishida. Specifically, Nakano neither teaches nor suggests the feature of means for detecting the movement of an object on the basis of an output of the imaging device, wherein the movement of the object is detected from motion vectors corresponding to a plurality of detecting areas set in an imaging area of the imaging device. Accordingly, Applicants respectfully submit that Kinjo, Nishida and Nakano, individually or in combination, do not disclose or suggest all the claimed features recited in claim 6.

Claim 6 depends from claim 7. Thus, for at least the above reasons, Applicants respectfully request the withdrawal of the rejection of claim 6 under 35 U.S.C. § 103(a).

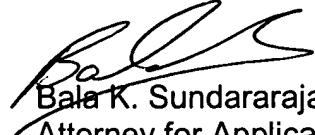
In view of the distinctions discussed above, withdrawal of the rejections to claims 2-7 is respectfully requested. Claim 7 is amended. No new matter is presented. Applicants respectfully submit that claims 2-7 recite subject matter that is neither taught nor suggested by the applied prior art. Accordingly, Applicants submit that the application is now in condition for allowance with claims 2-5 contained therein.

Should the Examiner believe anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. The Commissioner is authorized to charge payment for any additional fees which may be required with respect to this paper to Counsel's Deposit Account 01-2300, referring to docket number 107314-08005.

Respectfully submitted,

Arent Fox Kintner Plotkin & Kahn


Bala K. Sundararajan
Attorney for Applicants
Reg. No. 50,900

Customer No. 004372
1050 Connecticut Ave. NW
Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6261
Fax: (202) 638-4810

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Enclosure: Petition for Extension of Time (3 months)
Marked-up copy of the Claims

Marked-up Copy of the Claims

7. (Thrice Amended) A camera apparatus comprising:

an imaging device:

means for detecting [information relating to] the movement of an object on the basis of an output of the imaging device;

exposure determination means for determining the exposure; and

exposure correction means for making exposure correction to the exposure determined by the exposure determination means on the basis of the detected [information relating to the] movement of the object,

wherein the [information relating to the] movement of the object is detected by motion vectors [respectively] corresponding to a plurality of detecting areas set in an imaging area of the imaging device.